

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

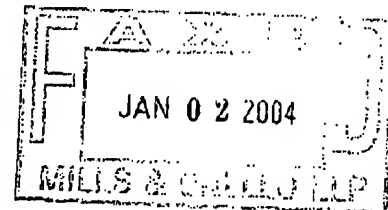
**MILLS & ONELLO LLP**

ATTORNEYS AT LAW  
PATENTS TRADEMARKS AND COPYRIGHTS

ELEVEN BEACON STREET, SUITE 605  
BOSTON, MASSACHUSETTS 02108

TELEPHONE: (617) 994-4800  
FACSIMILE: (617) 742-7774  
E-MAIL: MAIL@MILLSONELLO.COM

**URGENT**



**FACSIMILE TRANSMISSION**

**COPY**

**TO:** United States Patent and Trademark Office  
**Office of Initial Patent Examination's Filing Receipt Corrections**  
**Group Art Unit: 2811**

**FROM:** Anthony P. Onello, Jr.

**FAX NO:** (703) 746-9195

**RE:** U.S. Patent Application  
"Frequency Multiplier and Method of Multiplying Frequency  
of External Clock Signal, Data Output Buffer, and Semiconductor  
Device Including the Frequency Multiplier and the Data Output  
Buffer," by Kyoung-hwan Kwon, *et al.*  
U.S. Serial No.: 10/671,105  
U.S. Filing Date: September 25, 2003  
Our Reference: SAM-0474

**NUMBER OF PAGES INCLUDING COVER SHEET: 6**

**REMARKS:**

Dear Sirs:

Please find attached a Request for Correction to Filing Receipt for the  
referenced patent application.

Respectfully submitted,

Anthony P. Onello, Jr.

The documents transmitted by this facsimile are intended for the use of the individual or the entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of the message is not the intended recipient, or the employee or agent responsible for delivering this document to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original facsimile to us at the above address via the Postal Service. Thank you.

J:\SAM\0474\USPTO-office\initial\patexam.wpd

PATENT  
Attorney Docket No.: SAM-0474  
Customer No.: 29344

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Kyoung-hwan Kwon, *et al.* Examiner: Not yet assigned  
Serial No.: 10/671,105 Group Art Unit: 2811  
Filing Date: September 25, 2003  
Title: FREQUENCY MULTIPLIER AND METHOD OF MULTIPLYING FREQUENCY  
OF EXTERNAL CLOCK SIGNAL, DATA OUTPUT BUFFER, AND  
SEMICONDUCTOR DEVICE INCLUDING THE FREQUENCY MULTIPLIER  
AND THE DATA OUTPUT BUFFER

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper and any attachments hereto are being forwarded to the United States Patent and Trademark Office via facsimile at the facsimile telephone number and on the date indicated below.

1-2-04  
Date

(703) 746-9195  
Facsimile Number

Vanessa Marakas  
Vanessa Marakas

Office of Initial Patent Examination's Filing Receipt Corrections  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

TRANSMITTAL LETTER

Sir:

Enclosed herewith for filing in the above-identified patent application please find the following listed items:

1. Request For Correction to Filing Receipt; and
2. Copy of Filing Receipt;

In connection with the foregoing matter, please charge any additional fees which may be due, or credit any overpayment, to Deposit Account Number 50-1798. A duplicate copy of this letter is provided for this purpose.

Respectfully submitted,

Date: January 2, 2004  
MILLS & ONELLO, LLP  
Eleven Beacon Street, Suite 605  
Boston, Massachusetts 02108  
Telephone: (617) 994-4900  
Facsimile: (617) 742-7774  
J:\SAM\0474\transreqfilingreccorr.wpd

Anthony P. Onello, Jr.  
Anthony P. Onello, Jr.  
Registration Number 38,572  
Attorney for Applicant

PATENT  
Attorney Docket No.: SAM-0474

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Kyoung-hwan Kwon, *et al.* Examiner: Not yet assigned  
Serial No.: 10/671,105 Group Art Unit: 2811  
Filing Date: September 25, 2003  
Title: FREQUENCY MULTIPLIER AND METHOD OF MULTIPLYING  
FREQUENCY OF EXTERNAL CLOCK SIGNAL, DATA OUTPUT BUFFER,  
AND SEMICONDUCTOR DEVICE INCLUDING THE FREQUENCY  
MULTIPLIER AND THE DATA OUTPUT BUFFER

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper and any attachments hereto are being forwarded to the United States Patent and Trademark Office via facsimile at the facsimile telephone number and on the date indicated below.

1-2-04  
Date

(703) 746-9195  
Facsimile Number

Vancssa Marakas  
Vancssa Marakas

Office of Initial Patent Examination's Filing Receipt Corrections  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

REQUEST FOR CORRECTION TO FILING RECEIPT

Sir:

The Official Filing Receipt received in connection with the above-identified patent application is believed to be in error. The word "Buffer" is missing from the end of the title. The correct title should be "Frequency Multiplier and Method of Multiplying Frequency of External Clock Signal, Data Output Buffer, and Semiconductor Device Including the Frequency Multiplier and the Data Output Buffer". A copy of the incorrect Filing Receipt with the requested change noted thereon is enclosed.

Respectfully submitted,

Date: January 2, 2004  
MILLS & ONELLO, LLP  
Eleven Beacon Street, Suite 605  
Boston, Massachusetts 02108  
Telephone: (617) 994-4900  
Facsimile: (617) 742-7774  
J:\SAM\0474\reqcorr filing rec. wpd

Anthony P. Onello, Jr.  
Anthony P. Onello, Jr.  
Registration Number 38,572  
Attorney for Applicant



## UNITED STATES PATENT AND TRADEMARK OFFICE

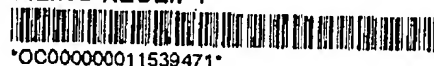
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22303-1450  
www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/671,105	09/25/2003	2811	1128	SAM-0474	6	27	6

Anthony P. Onello, Jr.  
MILLS & ONELLO LLP  
Suite 605  
Eleven Beacon Street  
Boston, MA 02108

CONFIRMATION NO. 7243

## FILING RECEIPT



\*OC000000011539471\*

Date Mailed: 12/19/2003

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Kyoung-Hwan Kwon, Seoul, KOREA, REPUBLIC OF;  
Hyun-Soon Jang, Seoul, KOREA, REPUBLIC OF;  
Kyu-Hyoun Kim, Suwon-city, KOREA, REPUBLIC OF;

## Assignment For Published Patent Application

Samsung Electronics Co., Ltd.;

## Domestic Priority data as claimed by applicant

## Foreign Applications

REPUBLIC OF KOREA 02-59831 10/01/2002

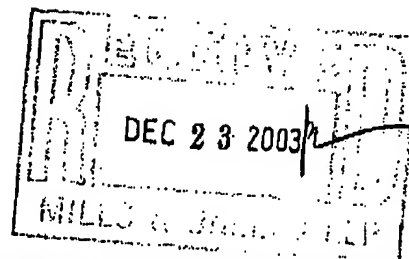
If Required, Foreign Filing License Granted: 12/19/2003

Projected Publication Date: 04/01/2004

Non-Publication Request: No

Early Publication Request: No

Title



Frequency multiplier and method of multiplying frequency of external clock signal, data output buffer, and semiconductor device including the frequency multiplier and the data output *buffer*

**Preliminary Class**

257

---

**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).